

**SAFETY COMPLIANCE TESTING FOR
FMVSS NO. 225
CHILD RESTRAINT ANCHORAGE SYSTEMS
LOWER AND TETHER ANCHORAGES**

**GENERAL MOTORS CORP.
2009 CADILLAC CTS, PASSENGER CAR
NHTSA NO. C90101**

**GENERAL TESTING LABORATORIES, INC.
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September 1, 2009

FINAL REPORT

PREPARED FOR

**U. S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
ENFORCEMENT
OFFICE OF VEHICLE SAFETY COMPLIANCE
1200 NEW JERSEY AVE., SE
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SECTION 1

PURPOSE OF COMPLIANCE TEST

1.0 PURPOSE OF COMPLIANCE TEST

A 2009 Cadillac CTS Passenger Car was subjected to Federal Motor Vehicle Safety Standard (FMVSS) No. 225 testing to determine if the vehicle was in compliance with the requirements of the standard. The purpose of this standard is to establish requirements for child restraint anchorage systems to ensure their proper location and strength for the effective securing of child restraints, to reduce the likelihood of the anchorage systems' failure and to increase the likelihood that child restraints are properly secured and thus more fully achieve their potential effectiveness in motor vehicles.

1.1 The test vehicle was a 2009 Cadillac CTS Passenger Car. Nomenclature applicable to the test vehicle are:

A. Vehicle Identification Number: 1G6DG577790130497

B. NHTSA No.: C90101

C. Manufacturer: GENERAL MOTORS CORP.

D. Manufacture Date: 08/08

1.2 TEST DATE

The test vehicle was subjected to FMVSS No. 225 testing during the time period August 20-21, 2009.

SECTION 2

COMPLIANCE TEST RESULTS

2.0 TEST RESULTS

All tests were conducted in accordance with NHTSA, Office of Vehicle Safety Compliance (OVSC) Laboratory Procedures, TP-225-01 dated 11 April 2005.

Based on the test performed, the 2009 Cadillac CTS Passenger Car appears to meet the requirements of FMVSS 225 testing.

SECTION 3

COMPLIANCE TEST DATA

3.0 TEST DATA

The following data sheets document the results of testing on the 2009 Cadillac CTS Passenger Car.

DATA SHEET 1
SUMMARY OF RESULTS

VEH. MOD YR/MAKE/MODEL/BODY: 2009 CADILLAC CTS PASSENGER CAR
 VEH. NHTSA NO: C90101; VIN: 1G6DG577790130497
 VEH. BUILD DATE: 08/08; TEST DATE: AUGUST 20, 2009
 TEST LABORATORY: GENERAL TESTING LABORATORIES
 OBSERVERS: GRANT FARRAND, JIMMY LATANE

A. VISUAL INSPECTION OF TEST VEHICLE

Upon receipt for completeness, function, and discrepancies or damage which might influence the testing.

RESULTS: OK FOR TEST

B. REQUIREMENTS FOR CHILD RESTRAINT SYSTEMS AND TETHER ANCHORAGES

	PASS	FAIL
DSP a	<u>X</u>	<u> </u>
DSP b	<u>X</u>	<u> </u>
DSP c	<u>X</u>	<u> </u>

C. LOCATION OF TETHER ANCHORAGES

	PASS	FAIL
DSP a	<u>X</u>	<u> </u>
DSP b	<u>X</u>	<u> </u>
DSP c	<u>X</u>	<u> </u>

D. LOWER ANCHORAGE DIMENSIONS

	PASS	FAIL
DSP a	<u>X</u>	<u> </u>
DSP b	<u>N/A</u>	<u>N/A</u>
DSP c	<u>X</u>	<u> </u>

DATA SHEET 1 CONTINUED
SUMMARY OF RESULTS

E. CONSPICUITY AND MARKING OF LOWER ANCHORAGES

	PASS	FAIL
DSP a	<u> X </u>	<u> </u>
DSP b	<u> N/A </u>	<u> N/A </u>
DSP c	<u> X </u>	<u> </u>

F. STRENGTH OF TETHER ANCHORAGES

	PASS	FAIL
DSP a	<u> X </u>	<u> </u>
DSP b	<u> X </u>	<u> </u>
DSP c	<u> N/A </u>	<u> N/A </u>

G. STRENGTH OF LOWER ANCHORAGES (Forward Force)

	PASS	FAIL
DSP a	<u> N/A </u>	<u> N/A </u>
DSP b	<u> N/A </u>	<u> N/A </u>
DSP c	<u> X </u>	<u> </u>

H. STRENGTH OF LOWER ANCHORAGE (Lateral Force)

	PASS	FAIL
DSP a	<u> N/A </u>	<u> N/A </u>
DSP b	<u> N/A </u>	<u> N/A </u>
DSP c	<u> N/A </u>	<u> N/A </u>

I. OWNER'S MANUAL

PASS	FAIL
<u> X </u>	<u> </u>

REMARKS:

NOTE:

RECORDED BY: G. Farrand
APPROVED BY: D. Messick

DATE: 08/20/09

DATA SHEET 2
 REQUIREMENTS FOR CHILD RESTRAINT ANCHORAGE SYSTEMS
 AND TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2009 CADILLAC CTS PASSENGER CAR
 VEH. NHTSA NO: C90101; VIN: 1G6DG577790130497
 VEH. BUILD DATE: 08/08; TEST DATE: AUGUST 20, 2009
 TEST LABORATORY: GENERAL TESTING LABORATORIES
 OBSERVERS: GRANT FARRAND, JIMMY LATANE

Number of rows of seats: 2
 Number of rear, forward-facing designated seating positions: 3
 Number of required CRAS (lower anchorages only, for convertibles/school buses): 2
 Number of required tether anchorages (can be additional CRAS): 3
 Is the vehicle a convertible? NO
 Is the vehicle a school bus? NO

Does the vehicle have a CRAS (lower anchorage only, for convertibles/school buses) installed at a front passenger seating position? NO

If NO, skip to next question.

If YES, does the vehicle have rear designated seating positions? _____

If NO, does the vehicle have an air bag on-off switch or a special exemption for no passenger air bag?

If NO = FAIL

If YES = PASS

If Yes, does the vehicle meet the requirements of S4.5.4.1 (b) of S208 and have and air bag on-off switch or a special exemption for no passenger air bag? _____

Record the distance between the front and rear seat back: _____

If Distance < 720 mm and vehicle has an air bag on-off switch or special exemption = PASS

If Distance ≥ 720 mm or no air bag on-off switch or no special exemption = FAIL

Does the vehicle have rear designated seating position(s) where the lower bars of a CRAS are prevented from being located because of transmission and/or suspension component interference? NO

If NO, skip to next question.

If YES, does the vehicle have a tether anchorage at a front passenger seating position?

YES = PASS

NO = FAIL (S5(e))

Number of provided CRAS (lower anchorage only, for convertibles/school buses), indicate if a built-in child restraint is counted as a CRAS: 2

Is the number of provided CRAS (lower anchorages only, for convertible/school buses) greater than or equal to the number of required CRAS (lower anchorages only, for convertibles/school buses)?

YES

YES = PASS

NO = FAIL (S4.4(a) or (b) or (c))

DATA SHEET 2 CONTINUED

If the vehicle has 3 or more rows of seats is a CRAS (lower anchorage only for convertibles/school buses) provided in the second row: N/A

YES = PASS

NO = FAIL (S4.4(a)(1))

Number of provided tether anchorages (can be additional CRAS) indicate if a built-in child restraint is counted as tether anchorage (NOTE: a built-in child restraint can only be counted toward either the required number of CRAS or tether anchorages, not both): 3

Is the number of provided tether anchorages greater than or equal to the number of required tether anchorages? YES

YES = PASS

NO = FAIL (S4.4 (a) or (b) or (c))

If the vehicle has 3 or more rear dsps and a non-outboard dsp, is a tether anchorage or CRAS provided at a non-outboard dsp? YES

YES = PASS

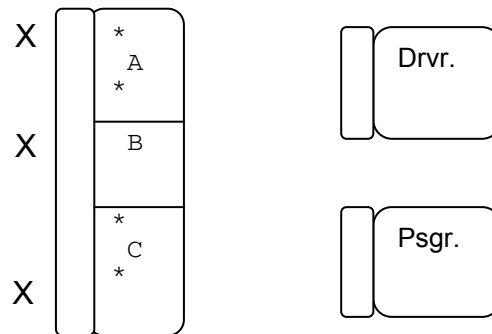
NO = FAIL (S4.4 (a)(2))

Are all tether and lower anchorages available for use at all times when the seat is configured for passenger use? YES

YES = PASS

NO = FAIL (S4.6 (b))

Provide a diagram showing the location of lower anchorages and/or tether anchorages.



X = Top Tether

***** = Lower Anchors

RECORDED BY: G. Farrand

DATE: 08/20/09

APPROVED BY: D. Messick

DATA SHEET 3
LOCATION OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2009 CADILLAC CTS PASSENGER CAR
 VEH. NHTSA NO: C90101; VIN: 1G6DG577790130497
 VEH. BUILD DATE: 08/08; TEST DATE: AUGUST 20, 2009
 TEST LABORATORY: GENERAL TESTING LABORATORIES
 OBSERVERS: GRANT FARRAND, JIMMY LATANE

DESIGNATED SEATING POSITION: ROW 2 LEFT, RIGHT AND CENTER POSITIONS

Detailed description of the location of the tether anchorage:
 LOCATED ON HAT SHELF BEHIND SEAT BACK.

Based on visual inspection, is the tether anchorage within the shaded zone? YES

If YES = PASS, skip to next section

If NO, After constructing the shaded zone, is the tether anchorage within the shaded zone?

 If YES = PASS, skip to next section

If NO, Is it possible to locate a tether anchorage within the shaded zone without removing a seating component?

If YES = FAIL (S6.2.1)

If NO, Is a tether routing device provided?

If YES = PASS

IF NO = FAIL (S6.2.1.2)

Is the tether anchorage recessed? YES

If NO, skip to next question

If YES, is it outside of the tether strap wraparound area? YES

YES = PASS NO = FAIL (S6.2.1)

Does the tether anchorage permit attachment of a tether hook? YES

YES = PASS NO = FAIL (S6.1(a))

Is the tether anchorage accessible without the need for any tools other than a screwdriver or coin?

YES
YES = PASS NO = FAIL (S6.1(b))

After the tether anchorage is accessed, is it ready for use without the need for tools? YES

YES = PASS NO = FAIL (S6.1(c))

Is the tether anchorage sealed to prevent the entry of exhaust fumes into the passenger compartment? YES

YES = PASS NO = FAIL (S6.1(d))

If the DSP has a tether routing device, is it flexible or rigid? N/A

DATA SHEET 3 CONTINUED

DESIGNATED SEATING POSITION: ROW 2 LEFT, RIGHT AND CENTER POSITIONS

If the DSP has a flexible tether routing device, after installing SFAD2 record the tether strap tension:
N/A (Must be 60 N $\pm$ 5 N)

If the DSP has a flexible tether routing device, record the horizontal distance between the torso reference plane and the routing device: N/A
 Greater than or equal to 65mm = PASS Less than 65mm = FAIL

If the DSP has a rigid tether routing device, record the horizontal distance between the torso reference plane and the routing device: N/A
 Greater than or equal to 100mm = PASS Less than 100mm = FAIL

COMMENTS:

RECORDED BY: G. FarrandDATE: 08/20/09APPROVED BY: D. Messick

DATA SHEET 4
LOWER ANCHORAGE DIMENSIONS

VEH. MOD YR/MAKE/MODEL/BODY: 2009 CADILLAC CTS PASSENGER CAR
 VEH. NHTSA NO: C90101; VIN: 1G6DG577790130497
 VEH. BUILD DATE: 08/08; TEST DATE: AUGUST 20, 2009
 TEST LABORATORY: GENERAL TESTING LABORATORIES
 OBSERVERS: GRANT FARRAND, JIMMY LATANE

DESIGNATED SEATING POSITION: ROW 2 LEFT SIDE (DSP A)

Outboard Lower Anchorage bar diameter: 5.97 mm
 6mm $\pm$ 0.1 mm = PASS Other size = FAIL (S9.1.1(a))

Inboard Lower Anchorage bar diameter: 5.97 mm
 6mm $\pm$ 0.1mm = PASS Other size = FAIL (S9.1.1(a))

Are the bars straight, horizontal and transverse? YES
 YES = PASS NO = FAIL

Length of the straight portion of the bar (outboard lower anchorage): 30 mm
 Length $\geq$ 25mm = PASS Length < 25mm = FAIL (S9.1.1(c) (i))

Length of the straight portion of the bar (inboard lower anchorage): 30 mm
 Length $\geq$ 25mm = PASS Length < 25mm = FAIL (S9.1.1(c) (i))

Length between the anchor bar supports (outboard lower anchorage): 38 mm
 Length $\leq$ 60mm = PASS Length > 60mm = FAIL (S9.1.1(c) (ii))

Length between the anchor bar supports (inboard lower anchorage): 40 mm
 Length $\leq$ 60mm = PASS Length > 60mm = FAIL (S9.1.1(c) (ii))

CRF Pitch angle: 8.0°
 Angle = $15^\circ \pm 10^\circ$ = PASS Angle $\neq 15^\circ \pm 10^\circ$ = FAIL (S9.2.1)

CRF Roll angle: 0.1°
 Angle = $0^\circ \pm 5^\circ$ = PASS Angle $\neq 0^\circ \pm 5^\circ$ = FAIL (S9.2.1)

CRF Yaw angle: 0.0°
 Angle = $0^\circ \pm 10^\circ$ = PASS Angle $\neq 0^\circ \pm 10^\circ$ = FAIL (S9.2.1)

Distance between point Z on the CRF and the front surface of outboard anchor bar: 48 mm
 Distance $\leq$ 70mm = PASS Distance > 70mm = FAIL

Distance between point Z on the CRF and the front surface of inboard anchor bar: 41 mm
 Distance $\leq$ 70mm = PASS Distance > 70mm = FAIL

DATA SHEET 4 CONTINUED

DESIGNATED SEATING POSITION: ROW 2 LEFT SIDE (DSP A)Distance between SgRP and the front surface of outboard anchor bar: 165 mmDistance $\geq 120\text{mm}$ = PASS Distance $< 120\text{mm}$ = FAILDistance between SgRP and the front surface of inboard anchor bar: 165 mmDistance $\geq 120\text{mm}$ = PASS Distance $< 120\text{mm}$ = FAIL

Based on visual observation, would a 100 N load cause the anchor bar to deform more than 5 mm?

NO

If NO = PASS

If YES = FAIL (S9.1.1(g)), Provide further description of the attachment of the anchor bar:

COMMENTS:

RECORDED BY: G. FarrandDATE: 08/20/09APPROVED BY: D. Messick

DATA SHEET 4A
LOWER ANCHORAGE DIMENSIONS

VEH. MOD YR/MAKE/MODEL/BODY: 2009 CADILLAC CTS PASSENGER CAR
 VEH. NHTSA NO: C90101; VIN: 1G6DG577790130497
 VEH. BUILD DATE: 08/08; TEST DATE: AUGUST 20, 2009
 TEST LABORATORY: GENERAL TESTING LABORATORIES
 OBSERVERS: GRANT FARRAND, JIMMY LATANE

DESIGNATED SEATING POSITION: ROW 2 RIGHT SIDE (DSP C)

Outboard Lower Anchorage bar diameter: 5.97 mm
 $6\text{mm} \pm 0.1\text{ mm} = \text{PASS}$ Other size = FAIL (S9.1.1(a))

Inboard Lower Anchorage bar diameter: 5.97 mm
 $6\text{mm} \pm 0.1\text{mm} = \text{PASS}$ Other size = FAIL (S9.1.1(a))

Are the bars straight, horizontal and transverse? YES
 YES = PASS NO = FAIL

Length of the straight portion of the bar (outboard lower anchorage): 30 mm
 Length $\geq 25\text{mm}$ = PASS Length $< 25\text{mm}$ = FAIL (S9.1.1(c) (i))

Length of the straight portion of the bar (inboard lower anchorage): 30 mm
 Length $\geq 25\text{mm}$ = PASS Length $< 25\text{mm}$ = FAIL (S9.1.1(c) (i))

Length between the anchor bar supports (outboard lower anchorage): 40 mm
 Length $\leq 60\text{mm}$ = PASS Length $> 60\text{mm}$ = FAIL (S9.1.1(c) (ii))

Length between the anchor bar supports (inboard lower anchorage): 40 mm
 Length $\leq 60\text{mm}$ = PASS Length $> 60\text{mm}$ = FAIL (S9.1.1(c) (ii))

CRF Pitch angle: 9.5°
 Angle = $15^\circ \pm 10^\circ$ = PASS Angle $\neq 15^\circ \pm 10^\circ$ = FAIL (S9.2.1)

CRF Roll angle: 0.0°
 Angle = $0^\circ \pm 5^\circ$ = PASS Angle $\neq 0^\circ \pm 5^\circ$ = FAIL (S9.2.1)

CRF Yaw angle: 0.0°
 Angle = $0^\circ \pm 10^\circ$ = PASS Angle $\neq 0^\circ \pm 10^\circ$ = FAIL (S9.2.1)

Distance between point Z on the CRF and the front surface of outboard anchor bar: 50 mm
 Distance $\leq 70\text{mm}$ = PASS Distance $> 70\text{mm}$ = FAIL

Distance between point Z on the CRF and the front surface of inboard anchor bar: 44 mm
 Distance $\leq 70\text{mm}$ = PASS Distance $> 70\text{mm}$ = FAIL

DATA SHEET 4A CONTINUED

DESIGNATED SEATING POSITION: ROW 2 RIGHT SIDE (DSP C)

Distance between SgRP and the front surface of outboard anchor bar: 165 mm
 Distance $\geq$ 120mm = PASS Distance < 120mm = FAIL

Distance between SgRP and the front surface of inboard anchor bar: 165 mm
 Distance $\geq$ 120mm = PASS Distance < 120mm = FAIL

Based on visual observation, would a 100 N load cause the anchor bar to deform more than 5 mm?
NO

If NO = PASS

If YES = FAIL (S9.1.1(g)), Provide further description of the attachment of the anchor bar:

COMMENTS:

RECORDED BY: G. Farrand

DATE: 08/20/09

APPROVED BY: D. Messick

DATA SHEET 5
CONSPICUITY AND MARKING OF LOWER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2009 CADILLAC CTS PASSENGER CAR
 VEH. NHTSA NO: C90101; VIN: 1G6DG577790130497
 VEH. BUILD DATE: 08/08; TEST DATE: AUGUST 20, 2009
 TEST LABORATORY: GENERAL TESTING LABORATORIES
 OBSERVERS: GRANT FARRAND, JIMMY LATANE

DESIGNATED SEATING POSITION: ROW 2 LEFT AND RIGHT SIDE (DSP A AND C)

MARKING (Circles)

Diameter of the circle: 15.0 mm
 Diameter $\geq 13\text{mm}$ = PASS Diameter $< 13\text{mm}$ = FAIL (S9.5(a)(1))

Does the circle have words, symbols or pictograms? PICTOGRAM
 NO skip to next question
 YES, are the meaning of the words, symbols or pictograms explained in the owner's manual?
YES
 YES = PASS NO = FAIL (S9.5(a)(2))

Where is the circle located? Seat back or seat Cushion: Seat Back

For circles on seat backs, vertical distance from the center of the circle to the center of the anchor bar: 81 mm
 Distance between 50&100mm = PASS Other Distance=FAIL (S9.5(a)(3))

For circles on seat cushions, horizontal distance from the center of the circle to the center of the bar:
N/A
 Distance between 75&125mm= PASS Other Distance=FAIL (S9.5(a)(3))

Lateral distance from the center of the circle to the center of the anchor bar: 10 mm
 Distance $\leq 25\text{mm}$ = PASS Distance $> 25\text{mm}$ = FAIL (S9.5(a)(3))

CONSPICUITY (No Circles)

Is the anchor bar or guide visible when viewed from a point 30° above the horizontal in a vertical longitudinal plane bisecting the anchor bar or guide? N/A
 YES = PASS NO = FAIL (S9.5(b))

If there is a guide, is it permanently attached? N/A
 YES = PASS NO = FAIL (S9.5(b))

DATA SHEET 5 CONTINUED

DESIGNATED SEATING POSITION: ROW 2 LEFT SIDE AND RIGHT SIDE (DSP A & C)Is there a cap or cover over the anchor bar? N/A

If YES, Is the cap or cover marked with words, symbols or pictograms? _____

If NO = FAIL (S9.5(b))

If YES, is the meaning of the words, symbols or pictograms explained in the owner's manual?

YES = PASS NO = FAIL (S9.5(b))

If NO, there are no requirements for having a cover.

RECORDED BY: G. FarrandDATE: 08/20/09APPROVED BY: D. Messick

DATA SHEET 6
STRENGTH OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2009 CADILLAC CTS PASSENGER CAR
 VEH. NHTSA NO: C90101; VIN: 1G6DG577790130497
 VEH. BUILD DATE: 08/08; TEST DATE: AUGUST 20, 2009
 TEST LABORATORY: GENERAL TESTING LABORATORIES
 OBSERVERS: GRANT FARRAND, JIMMY LATANE
 TEST NO: 6292

DESIGNATED SEATING POSITION: ROW 2 LEFT SIDE (DSP A)

SFAD: 2

Seat Back Angle: 26°

Location of seat back angle measurement: 2D Template

Head Restraint Position: FIXED

D-ring Position: N/A

Force at Point X (lower front crossmember for SFAD2) while securing belts and tether: 135 N

Lap belt tension: N/A (SFAD 1 only)

Tether strap tension: 60 N

Angle (measured above the horizontal at 500 N): 10°

Separation of tether anchorage at 500 N: NO
 NO = PASS YES = FAIL (S6.3.1)

Force application rate: 577 N/S

Time to reach maximum force (24-30 s): 26 sec.

Maximum force (14,950 N ± 50 N): 14,941 N

Tested simultaneously with another DSP? NO

COMMENTS:

RECORDED BY: G. FARRAND

DATE: 08/20/09

APPROVED BY: D. MESSICK

DATA SHEET 6A
STRENGTH OF TETHER ANCHORAGES

VEH. MOD YR/MAKE/MODEL/BODY: 2009 CADILLAC CTS PASSENGER CAR
 VEH. NHTSA NO: C90101; VIN: 1G6DG577790130497
 VEH. BUILD DATE: 08/08; TEST DATE: AUGUST 20, 2009
 TEST LABORATORY: GENERAL TESTING LABORATORIES
 OBSERVERS: GRANT FARRAND, JIMMY LATANE
 TEST NO: 6293

DESIGNATED SEATING POSITION: ROW 2 CENTER (DSP B)

SFAD: 1

Seat Back Angle: 26°

Location of seat back angle measurement: 2D Template

Head Restraint Position: N/A

D-ring Position: N/A

Force at Point X (lower front crossmember for SFAD2) while securing belts and tether: 135N

Lap belt tension: 55 N (SFAD 1 only)

Tether strap tension: 55 N

Angle (measured above the horizontal at 500 N): 10°

Separation of tether anchorage at 500 N: NO
 NO = PASS YES = FAIL (S6.3.1)

Force application rate: 577 N/S

Time to reach maximum force (24-30 s): 26 sec.

Maximum force (14,950 N ± 50 N): 14,932 N

Tested simultaneously with another DSP? NO

COMMENTS:

RECORDED BY: G. FARRAND

DATE: 08/20/09

APPROVED BY: D. MESSICK

DATA SHEET 7
STRENGTH OF LOWER ANCHORAGES (Forward Force)

VEH. MOD YR/MAKE/MODEL/BODY: 2009 CADILLAC CTS PASSENGER CAR
 VEH. NHTSA NO: C90101; VIN: 1G6DG577790130497
 VEH. BUILD DATE: 08/08; TEST DATE: AUGUST 20, 2009
 TEST LABORATORY: GENERAL TESTING LABORATORIES
 OBSERVERS: GRANT FARRAND, JIMMY LATANE
 TEST NO: 6291

DESIGNATED SEATING POSITION: ROW 2 RIGHT SIDE (DSP C)

Seat Back Angle: 26°

Location of seat back angle measurement: 2D Template

Head Restraint Position: FIXED

Force at lower front crossmember for SFAD2 while tightening rearward extensions: 135 N

Angle (measured above the horizontal at 500 N): 10°

Force application rate: 423 N/S

Time to reach maximum force (24-30 s): 26 sec.

Maximum force (10,950 N ± 50 N): 10,950 N

Displacement, H1 (at 500N): 0

Displacement, H2 (at maximum load): 54.8 mm

Displacement of Point X: 54.8 mm (H2-H1)
 Displacement > 175 mm = FAIL (S9.4.1(a))

Tested simultaneously with another DSP? NO

Distance between adjacent DSP's: 360 mm

COMMENTS:

RECORDED BY: G. FARRAND

DATE: 08/20/09

APPROVED BY: D. MESSICK

DATA SHEET 8
OWNER'S MANUAL

VEH. MOD YR/MAKE/MODEL/BODY: 2009 CADILLAC CTS PASSENGER CAR
 VEH. NHTSA NO: C90101; VIN: 1G6DG577790130497
 VEH. BUILD DATE: 08/08; TEST DATE: AUGUST 20, 2009
 TEST LABORATORY: GENERAL TESTING LABORATORIES
 OBSERVERS: GRANT FARRAND, JIMMY LATANE

Description of which DSP's are equipped with tether anchorages and child restraint anchorage systems: YES

PASS X FAIL _____

Step-by-step instructions for properly attaching a child restraint system's tether strap to the tether anchorage. Diagrams are required. YES

PASS X FAIL _____

Description of how to properly use the tether anchorage and lower anchor bars: YES

PASS X FAIL _____

If the lower anchor bars are marked with a circle, an explanation of what the circle indicates as well as any words or pictograms: YES

PASS X FAIL _____

COMMENTS:

RECORDED BY: G. Farrand

DATE: 08/20/09

APPROVED BY: D. Messick

SECTION 4
INSTRUMENTATION AND EQUIPMENT LIST

TABLE 1 - INSTRUMENTATION & EQUIPMENT LIST

EQUIPMENT	DESCRIPTION	MODEL/ SERIAL NO.	CAL. DATE	NEXT CAL. DATE
COMPUTER	AT&T	486DX266	BEFORE USE	BEFORE USE
LOAD CELL	INTERFACE	215636	05/09	05/10
LINEAR TRANSDUCER	SERVO SYSTEMS	69	BEFORE USE	BEFORE USE
SEAT BELT LOAD CELL	TRANSDUCER	135	BEFORE USE	BEFORE USE
SEAT BELT LOAD CELL	TRANSDUCER	137	BEFORE USE	BEFORE USE
LEVEL	STANLEY	42-449	BEFORE USE	BEFORE USE
FORCE GAUGE	CHATILLON	8761	BEFORE USE	BEFORE USE
CALIPER	N/A	Q9322365	BEFORE USE	BEFORE USE
CRF	MEASUREMENT FIXTURE	GTL CRF	BEFORE USE	BEFORE USE
SFAD 1	FORCE APPLICATION DEVICE	GTL SFAD 1	BEFORE USE	BEFORE USE
SFAD 2	FORCE APPLICATION DEVICE	GLT SFAD 2	BEFORE USE	BEFORE USE

SECTION 5
PHOTOGRAPHS



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.1
LEFT SIDE VIEW OF VEHICLE



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.2
RIGHT SIDE VIEW OF VEHICLE



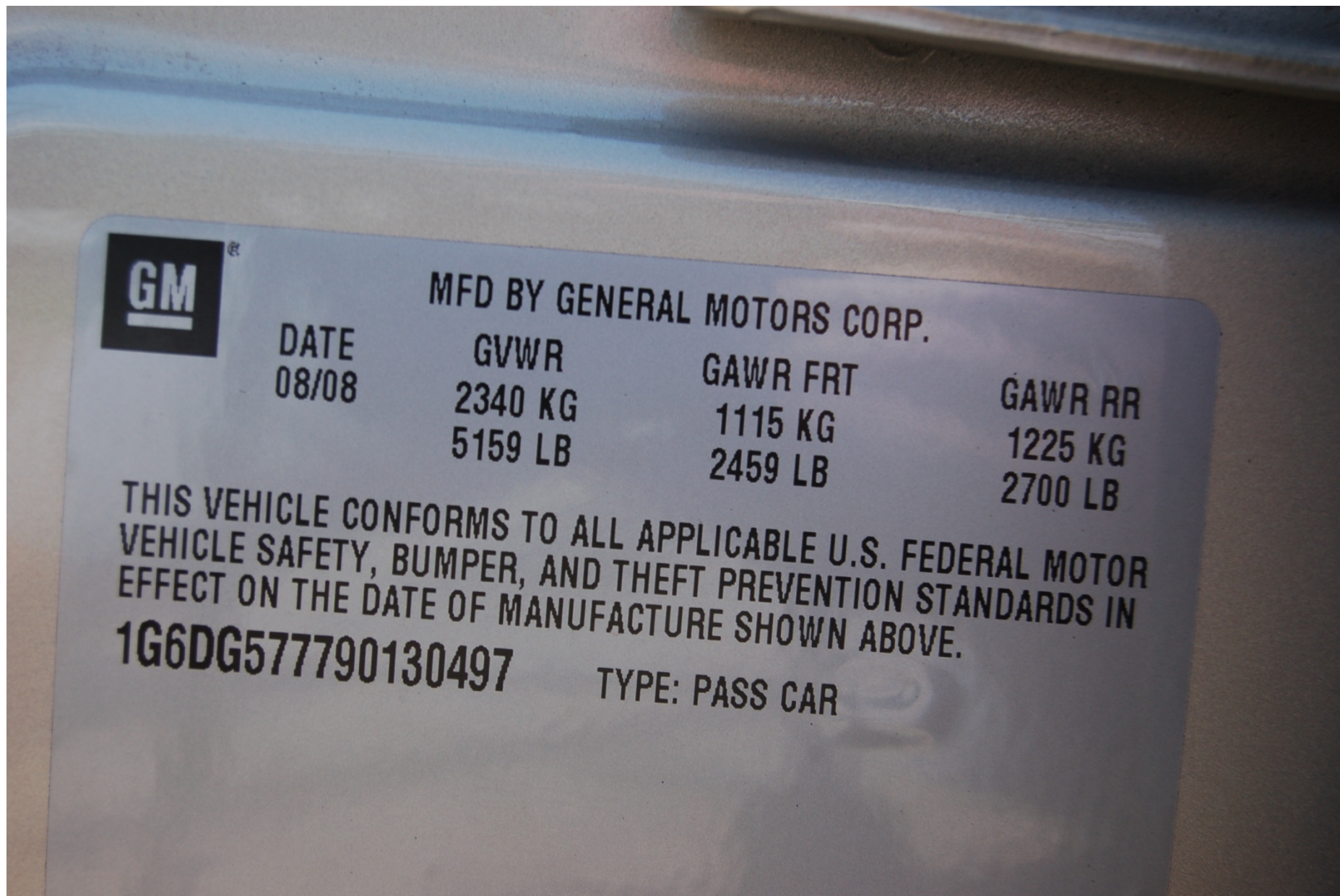
2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.3
¾ FRONTAL VIEW FROM LEFT SIDE OF VEHICLE



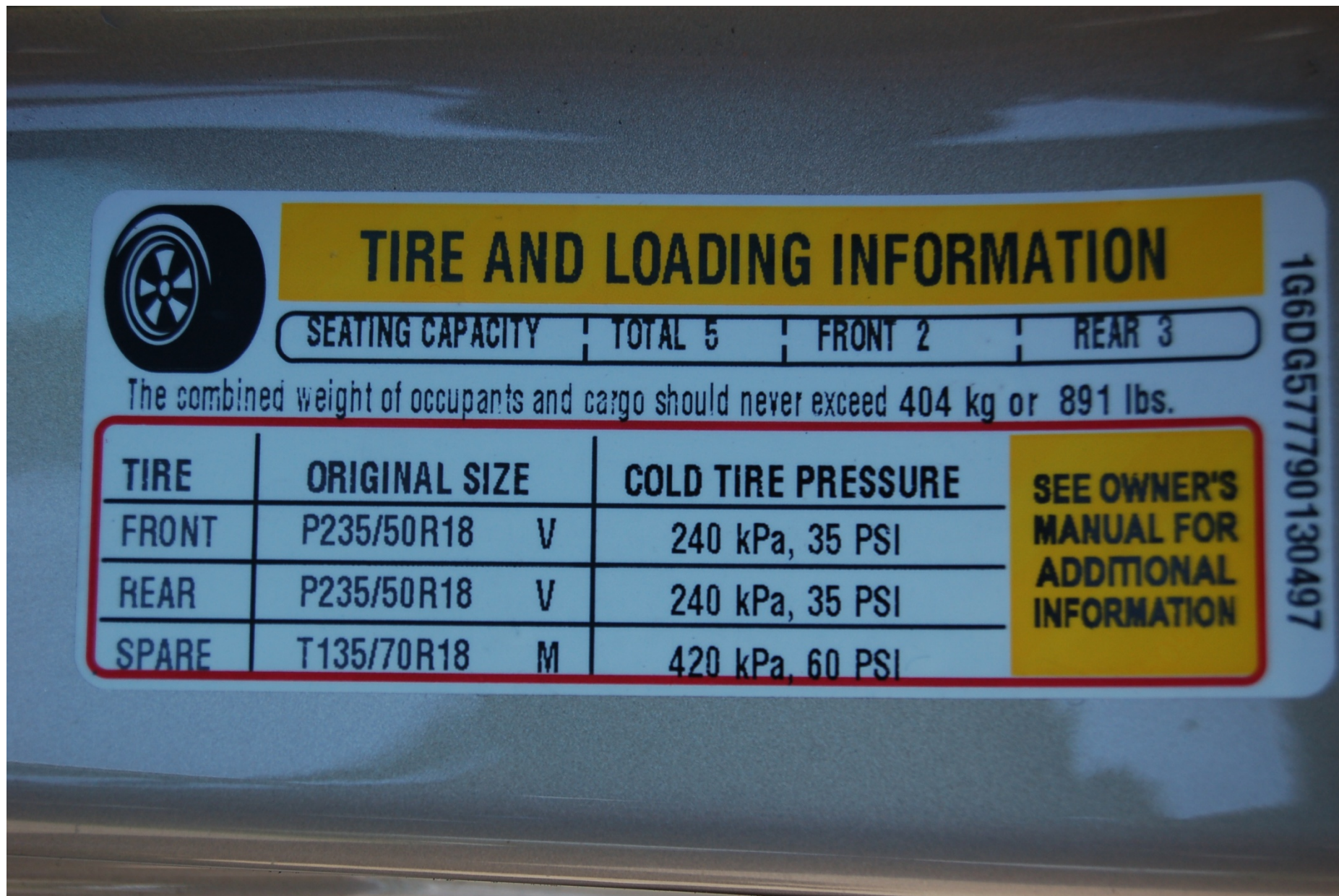
2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.4
¾ REAR VIEW FROM RIGHT SIDE OF VEHICLE



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.5
CLOSE-UP VIEW OF VEHICLE CERTIFICATION LABEL



2009 CADILLAC CTS
 NHTSA NO. C90101
 FMVSS NO. 225

FIGURE 5.6
 CLOSE-UP VIEW OF VEHICLE TIRE INFORMATION
 LABEL



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.7
PRE-TEST VIEW OF ROW 2 SEATING POSITIONS



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.8
MEASUREMENT OF LOWER ANCHOR SYMBOL



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NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.9
VISIBILITY OF LOWER ANCHOR BARS



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.10
ROW 2, LEFT SIDE, TOP TETHER ANCHOR, PRE-TEST



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.11
ROW 2, CENTER, TOP TETHER ANCHOR, PRE-TEST



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.12
ROW 2, RIGHT SIDE, TOP TETHER ANCHOR, PRE-TEST



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.13
ROW 2, RIGHT SIDE, OUTBOARD LOWER ANCHOR, PRE-TEST



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.14
ROW 2, RIGHT SIDE, INBOARD LOWER ANCHOR PRE-TEST



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.15
ROW 2, LEFT SIDE, OUTBOARD LOWER ANCHOR, PRE-TEST



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.16
ROW 2, LEFT SIDE, INBOARD LOWER ANCHOR, PRE-TEST



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.17
ROW 2, RIGHT SIDE WITH CRF INSTALLED



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.18
ROW 2, RIGHT SIDE PITCH MEASUREMENT



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.19
ROW 2, RIGHT SIDE, OUTBOARD Z MEASUREMENT



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.20
ROW 2, RIGHT SIDE, INBOARD Z MEASUREMENT



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.21
ROW 2, LEFT SIDE WITH CRF INSTALLED



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.22
ROW 2, LEFT SIDE PITCH MEASUREMENT



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.23
ROW 2, LEFT SIDE OUTBOARD Z MEASUREMENT



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.24
ROW 2, LEFT SIDE, INBOARD Z MEASUREMENT



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.25
ROW 2, RIGHT SIDE WITH 2-D TEMPLATE



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.26
ROW 2, LEFT SIDE WITH 2-D TEMPLATE



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.27
ROW 2, CENTER WITH 2-D TEMPLATE



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.28
ROW 2, LEFT SIDE, TOP TETHER ROUTING



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.29
ROW 2, LEFT SIDE, TOP TETHER ROUTING



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.30
ROW 2, RIGHT SIDE, TOP TETHER ROUTING



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.31
ROW 2, CENTER, TOP TETHER ROUTING



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.32
ROW 2, LEFT SIDE, OUTBOARD SRP MEASUREMENT



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.33
ROW 2, LEFT SIDE INBOARD SRP MEASUREMENT



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.34
ROW 2, RIGHT SIDE, OUTBOARD SRP MEASUREMENT



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.35
ROW 2, RIGHT SIDE, INBOARD SRP MEASUREMENT



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.36
¾ LEFT FRONT VIEW OF VEHICLE IN TEST FIXTURE



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.37
¾ RIGHT FRONT VIEW OF VEHICLE IN TEST RIG



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.38
PRE-TEST ROW 2, LEFT SIDE WITH SFAD 2



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.39
POST TEST ROW 2, LEFT SIDE WITH SFAD 2



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.40
PRE-TEST ROW 2, RIGHT SIDE WITH SFAD 2



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.41
POST TEST ROW 2, RIGHT SIDE WITH SFAD 2



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.42
PRE-TEST ROW 2, CENTER WITH SFAD 1



2009 CADILLAC CTS
NHTSA NO. C90101
FMVSS NO. 225

FIGURE 5.43
POST TEST ROW 2, CENTER WITH SFAD 1

APPENDIX A
OWNER'S MANUAL RESTRAINT INFORMATION

CAUTION: (Continued)

Secure rear-facing child restraints in a rear seat, even if the airbag is off. If you secure a forward-facing child restraint in the right front seat, always move the front passenger seat as far back as it will go. It is better to secure the child restraint in a rear seat.

See *Passenger Sensing System* on page 1-67 for additional information.

When securing a child restraint in a rear seating position, study the instructions that came with the child restraint to make sure it is compatible with this vehicle.

Wherever a child restraint is installed, be sure to secure the child restraint properly.

Keep in mind that an unsecured child restraint can move around in a collision or sudden stop and injure people in the vehicle. Be sure to properly secure any child restraint in the vehicle — even when no child is in it.

Lower Anchors and Tethers for Children (LATCH)

The LATCH system holds a child restraint during driving or in a crash. This system is designed to make installation of a child restraint easier. The LATCH system uses anchors in the vehicle and attachments on the child restraint that are made for use with the LATCH system.

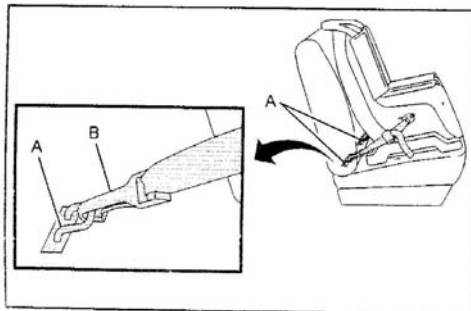
Make sure that a LATCH-compatible child restraint is properly installed using the anchors, or use the vehicle's safety belts to secure the restraint, following the instructions that came with that restraint, and also the instructions in this manual. When installing a child restraint with a top tether, you must also use either the lower anchors or the safety belts to properly secure the child restraint. A child restraint must never be installed using only the top tether and anchor.

In order to use the LATCH system in your vehicle, you need a child restraint that has LATCH attachments. The child restraint manufacturer will provide you with instructions on how to use the child restraint and its attachments. The following explains how to attach a child restraint with these attachments in your vehicle.

Not all vehicle seating positions or child restraints have lower anchors and attachments or top tether anchors and attachments.

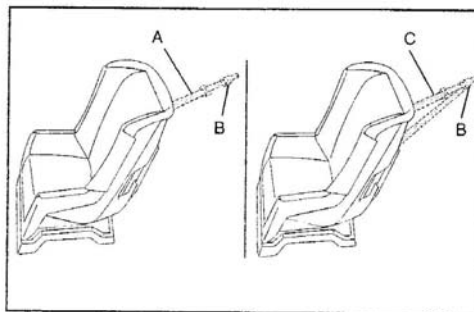
1-45

Lower Anchors



Lower anchors (A) are metal bars built into the vehicle. There are two lower anchors for each LATCH seating position that will accommodate a child restraint with lower attachments (B).

Top Tether Anchor



A top tether (A, C) anchors the top of the child restraint to the vehicle. A top tether anchor is built into the vehicle. The top tether attachment (B) on the child restraint connects to the top tether anchor in the vehicle in order to reduce the forward movement and rotation of the child restraint during driving or in a crash.

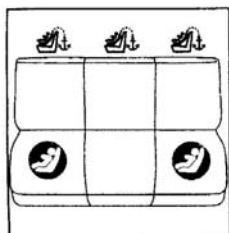
Your child restraint may have a single tether (A) or a dual tether (C). Either will have a single attachment (B) to secure the top tether to the anchor.

-46

Some child restraints with top tethers are designed for use with or without the top tether being attached. Others require the top tether always to be attached. In Canada, the law requires that forward-facing child restraints have a top tether, and that the tether be attached. Be sure to read and follow the instructions for your child restraint.

If the child restraint does not have a top tether, one can be obtained, in kit form, for many child restraints. Ask the child restraint manufacturer whether or not a kit is available.

Lower Anchor and Top Tether Anchor Locations



Rear Seat

 (Top Tether Anchor): Seating positions with top tether anchors.

 (Lower Anchor): Seating positions with two lower anchors.

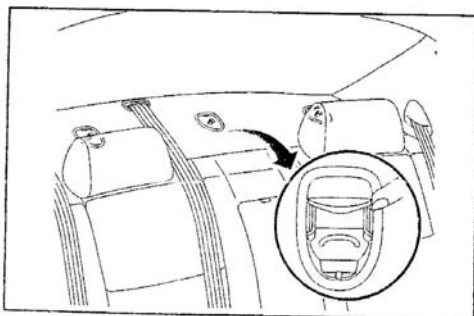


To assist you in locating the lower anchors, each seating position with lower anchors has two labels, near the crease between the seatback and the seat cushion.



To assist you in locating the top tether anchors, the top tether anchor symbol is located on the cover.

The top tether anchors are located under the covers on the rear seatback filler panel. Be sure to use an anchor located on the same side of the vehicle as the seating position where the child restraint will be placed.



Do not secure a child restraint in a position without a top tether anchor if a national or local law requires that the top tether be attached, or if the instructions that come with the child restraint say that the top tether must be attached.

Accident statistics show that children are safer if they are restrained in the rear rather than the front seat. See *Where to Put the Restraint* on page 1-44 for additional information.

Securing a Child Restraint Designed for the LATCH System

CAUTION:

If a LATCH-type child restraint is not attached to anchors, the child restraint will not be able to protect the child correctly. In a crash, the child could be seriously injured or killed. Install a LATCH-type child restraint properly using the anchors, or use the vehicle's safety belts to secure the restraint, following the instructions that came with the child restraint and the instructions in this manual.

⚠ CAUTION:

Do not attach more than one child restraint to a single anchor. Attaching more than one child restraint to a single anchor could cause the anchor or attachment to come loose or even break during a crash. A child or others could be injured. To reduce the risk of serious or fatal injuries during a crash, attach only one child restraint per anchor.

⚠ CAUTION:

Children can be seriously injured or strangled if a shoulder belt is wrapped around their neck and the safety belt continues to tighten. Buckle any unused safety belts behind the child restraint so children cannot reach them. Pull the shoulder belt all the way out of the retractor to set the lock, if your vehicle has one, after the child restraint has been installed.

Notice: Do not let the LATCH attachments rub against the vehicle's safety belts. This may damage these parts. If necessary, move buckled safety belts to avoid rubbing the LATCH attachments.

Do not fold the empty rear seat with a safety belt buckled. This could damage the safety belt or the seat. Unbuckle and return the safety belt to its stowed position.

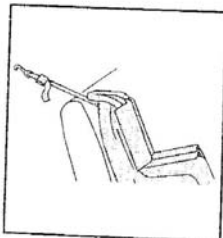
1. Attach and tighten the lower attachments to the lower anchors. If the child restraint does not have lower attachments or the desired seating position does not have lower anchors, secure the child restraint with the top tether and the safety belts. Refer to your child restraint manufacturer instructions and the instructions in this manual.

- 1.1. Find the lower anchors for the desired seating position.
- 1.2. Put the child restraint on the seat.
- 1.3. Attach and tighten the lower attachments on the child restraint to the lower anchors.

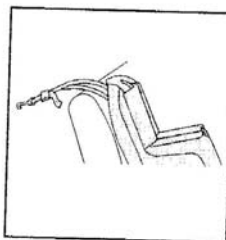
1-49

2. If the child restraint manufacturer recommends that the top tether be attached, attach and tighten the top tether to the top tether anchor, if equipped. Refer to the child restraint instructions and the following steps:

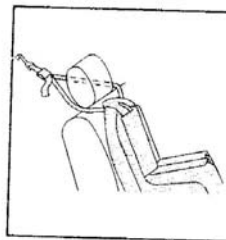
- 2.1. Find the top tether anchor.
- 2.2. Press the ribbed area of the cover to open the cover and expose the anchor.
- 2.3. If you have an adjustable head restraint, raise the head restraint.
- 2.4. Route, attach and tighten the top tether according to your child restraint instructions and the following instructions:



If the position you are using does not have a head restraint and you are using a single tether, route the tether over the seatback.

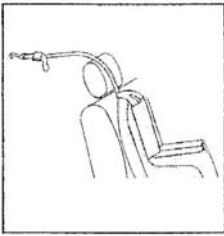


If the position you are using does not have a head restraint and you are using a dual tether, route the tether over the seatback.



If the position you are using has a fixed head restraint and you are using a dual tether, route the tether around the head restraint.

1-50



If the position you are using has a fixed head restraint and you are using a single tether, route the tether over the head restraint.

3. Push and pull the child restraint in different directions to be sure it is secure.

Securing a Child Restraint in a Rear Seat Position

When securing a child restraint in a rear seating position, study the instructions that came with the child restraint to make sure it is compatible with this vehicle.

If the child restraint has the LATCH system, see *Lower Anchors and Tethers for Children (LATCH)* on page 1-45 for how and where to install the child restraint using LATCH. If a child restraint is secured in the vehicle using a safety belt and it uses a top tether, see *Lower Anchors and Tethers for Children (LATCH)* on page 1-45 for top tether anchor locations.

Do not secure a child seat in a position without a top tether anchor if a national or local law requires that the top tether be anchored, or if the instructions that come with the child restraint say that the top strap must be anchored.

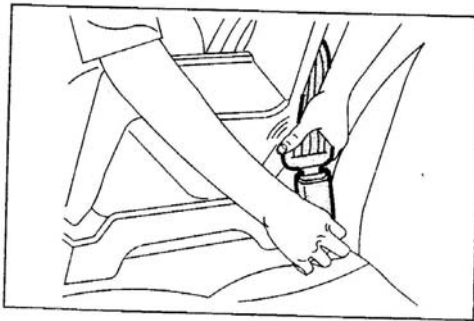
In Canada, the law requires that forward-facing child restraints have a top tether, and that the tether be attached.

If the child restraint does not have the LATCH system, you will be using the safety belt to secure the child restraint in this position. Be sure to follow the instructions that came with the child restraint. Secure the child in the child restraint when and as the instructions say.

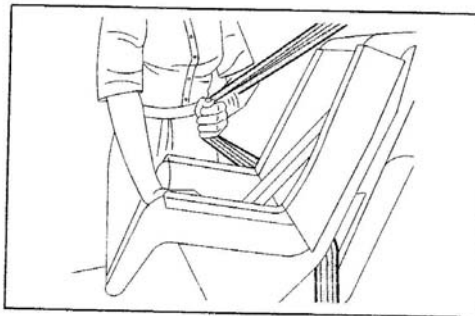
If more than one child restraint needs to be installed in the rear seat, be sure to read *Where to Put the Restraint* on page 1-44.

1. Put the child restraint on the seat.
2. Pick up the latch plate, and run the lap and shoulder portions of the vehicle's safety belt through or around the restraint. The child restraint instructions will show you how.

1-51

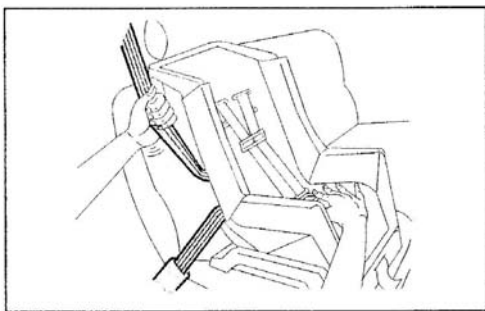


3. Push the latch plate into the buckle until it clicks. Position the release button on the buckle so that the safety belt could be quickly unbuckled if necessary.



4. Pull the rest of the shoulder belt all the way out of the retractor to set the lock.

1-52



5. To tighten the belt, push down on the child restraint, pull the shoulder portion of the belt to tighten the lap portion of the belt and feed the shoulder belt back into the retractor. When installing a forward-facing child restraint, it may be helpful to use your knee to push down on the child restraint as you tighten the belt.

6. If the child restraint has a top tether, follow the child restraint manufacturer's instructions regarding the use of the top tether. See *Lower Anchors and Tethers for Children (LATCH)* on page 1-45 for more information.

7. Push and pull the child restraint in different directions to be sure it is secure.

To remove the child restraint, unbuckle the vehicle safety belt and let it return to the stowed position. If the top tether is attached to a top tether anchor, disconnect it.

APPENDIX B

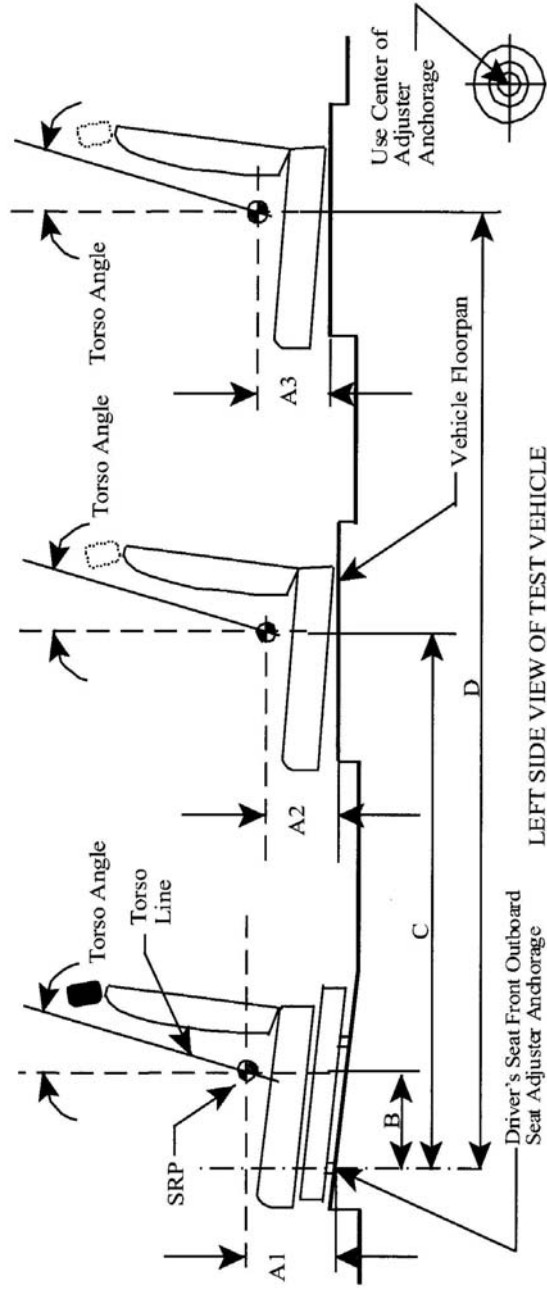
MANUFACTURER'S DATA

SEAT REFERENCE POINT (SRP) AND TORSO ANGLE DATA

FMVSS No. 225
(All dimensions in mm¹)

MODEL YEAR: 2009 / MAKE: CADILLAC / MODEL: CTS / BODY STYLE: SEDAN

SEAT STYLE: FRONT ROW: 40/40 / SECOND ROW: 60/40 / THIRD ROW: N/A



LEFT SIDE VIEW OF TEST VEHICLE

Table 1. Seating Positions¹ and Torso Angles

	Left (Driver Side)	Center (if any)	Right
A1	233.70mm	N/A	233.70mm
A2	234.70mm	259.70mm	234.70mm
A3	N/A	N/A	N/A
B	326.25mm	N/A	326.25mm
C	1148.25mm	1123.25mm	1148.25mm
D	N/A	N/A	N/A
Torso Angle (degree)	Front Row	N/A	24°
	Second Row	26°	26°
	Third Row	N/A	N/A

Note: All dimensions are in mm. If not, provide the unit used.

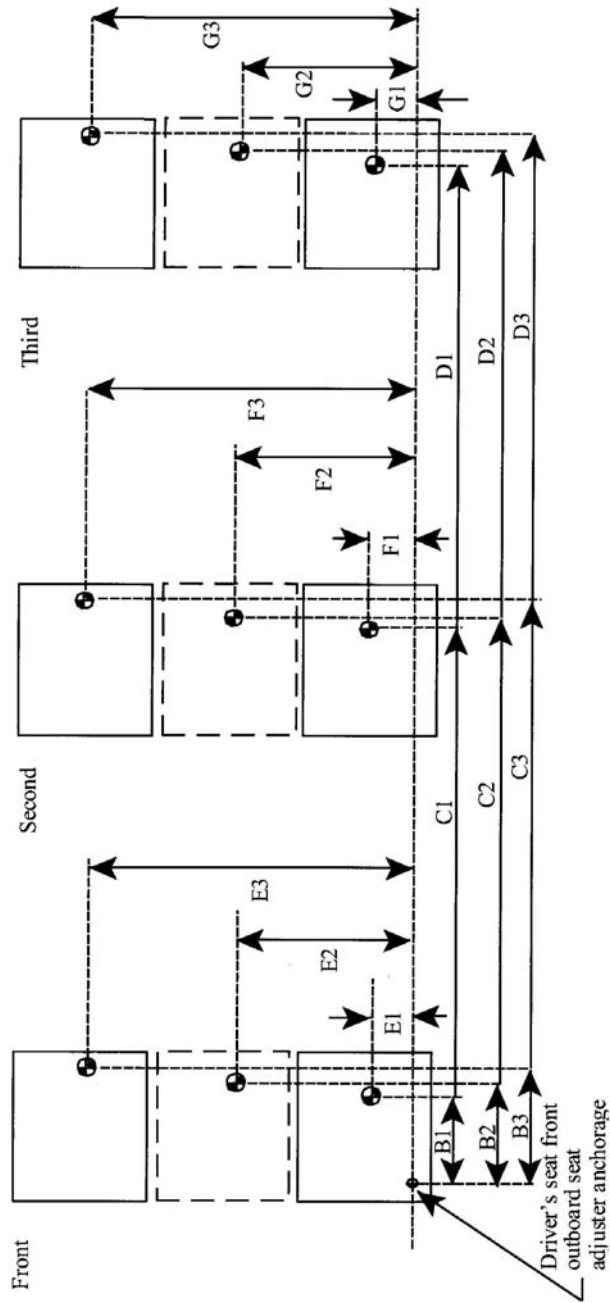
SEATING REFERENCE POINT

FMVSS No. 225

(All dimensions in mm)

MODEL YEAR: 2009 / MAKE: CADILLAC / MODEL: CTS / BODY STYLE: SEDAN

SEAT STYLE: FRONT ROW: 40/40 / SECOND ROW: 60/40 / THIRD ROW: N/A



FORM - 225

Table 2. Seating Reference Point and Tether Anchorage Locations

Seating Reference Point (SRP)		Distance from Driver's front outboard seat adjuster anchorage ¹
Front Row	B1	326.25mm
	E1	260.52mm
	B2	N/A
	E2	N/A
	B3	326.25mm
	E3	1000.52mm
Second Row	C1	1148.25mm
	F1	270.52mm
	C2	1123.25mm
	F2	630.52mm
	C3	1148.25mm
	F3	990.52mm
Third Row	D1	N/A
	G1	N/A
	D2	N/A
	G2	N/A
	D3	N/A
	G3	N/A

Note: Use the center of anchorage.

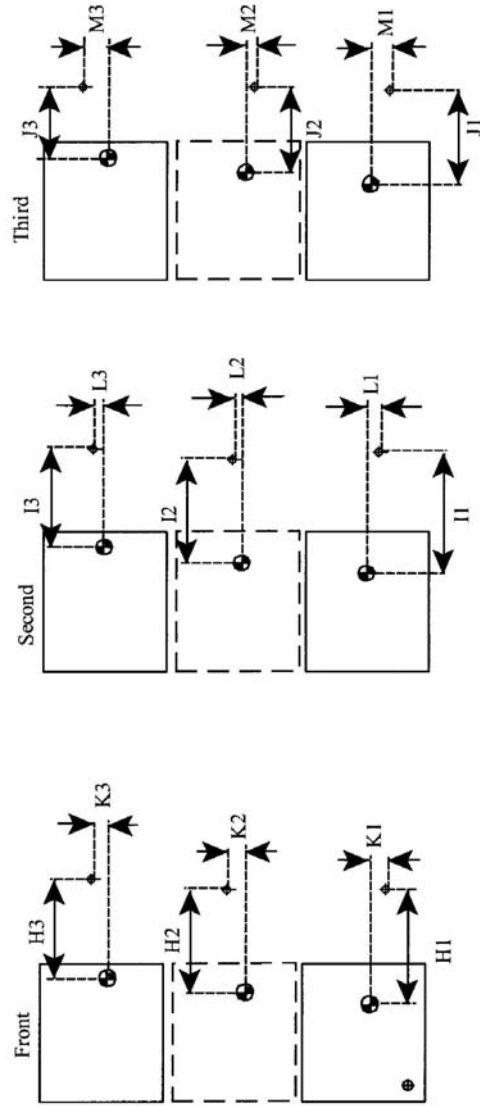
TETHER ANCHORAGE LOCATIONS

FMVSS No. 225

(All dimensions in mm)

MODEL YEAR: 2009 / MAKE: CADILLAC / MODEL: CTS / BODY STYLE: SEDAN

SEAT STYLE: FRONT ROW: 40/40 / SECOND ROW: 60/40 / THIRD ROW: N/A



●: SRP

◆: Tether anchorage

Note: The location shall be measured at the center of anchorage.

FORM – 225

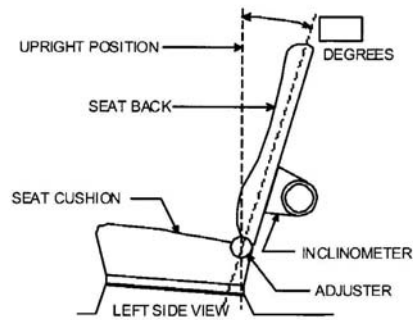
Table 3. Seating Reference Point and Tether Anchorage Locations

Seating Reference Point (SRP)	Distance from SRP	
Front Row	H1	N/A
	K1	N/A
	H2	N/A
	K2	N/A
	H3	N/A
	K3	N/A
Second Row	I1	541.50mm
	L1	0.0
	I2	566.50mm
	L2	0.0
	I3	541.50mm
	L3	0.0
Third Row	J1	N/A
	M1	N/A
	J2	N/A
	M2	N/A
	J3	N/A
	M3	N/A

Note: Use the center of anchorage.

NOMINAL DESIGN RIDING POSITION

For adjustable driver, passenger, 2nd row and 3rd row seat backs, describe how to position the inclinometer to measure the seat back angle. Include a description of the location of the seat back adjustment latch detent if applicable. Indicate if applicable, how the detents are numbered (Is the first detent "0" or "1"?). Indicate if the seat back angle is measured with the dummy in the seat.



Seat back angle for driver's seat = 24 degrees.

Measurement Instructions:

Inclinometer is placed on the headrest rod to measure the seat back angle. 24 degrees of the seat back angle translates to 8.0 deg at the headrest rod.

Seat back angle for passenger's seat = 24 degrees.

Measurement Instructions:

Inclinometer is placed on the headrest rod to measure the seat back angle. 24 degrees of the seat back angle translates to 8.0 deg at the headrest rod.

Seat back angle for 2nd row seat = 26 degrees.

Measurement Instructions:

No program specific measurement requirements.

Seat back angle for 3rd row seat = N/A degrees.

Measurement Instructions:

No program specific measurement requirements.

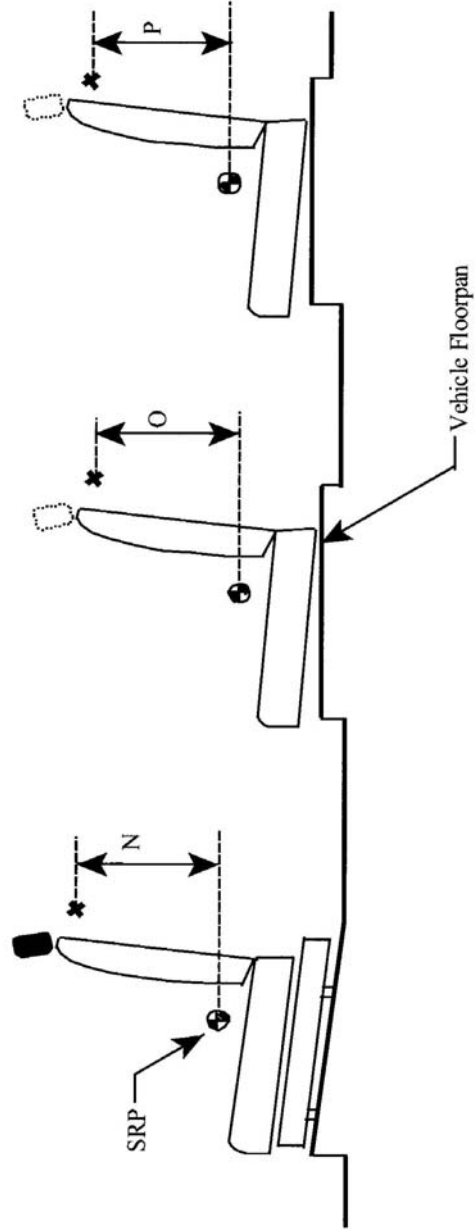
TETHER ANCHORAGE LOCATIONS - VERTICAL

FMVSS No. 225

(All dimensions in mm)

MODEL YEAR: 2009 / MAKE: CADILLAC / MODEL: CTS / BODY STYLE: SEDAN

SEAT STYLE: FRONT ROW: 40/40 / SECOND ROW: 60/40 / THIRD ROW: N/A



LEFT SIDE VIEW OF TEST VEHICLE

FORM - 225

Table 4. Vertical Dimension For The Tether Anchorage

Seating Row	Vertical Distance from Seating Reference Point	
Front Row	N1 (Driver)	N/A
	N2 (Center)	N/A
	N3 (Right)	N/A
Second Row	O1 (Left)	519.8mm
	O2 (Center)	494.8mm
	O3 (Right)	519.8mm
Third Row	P1 (Left)	N/A
	P2 (Center)	N/A
	P3 (Right)	N/A

Note: All dimensions are in mm. If not, provide the unit anchorage.

For each vehicle, provide the following information:

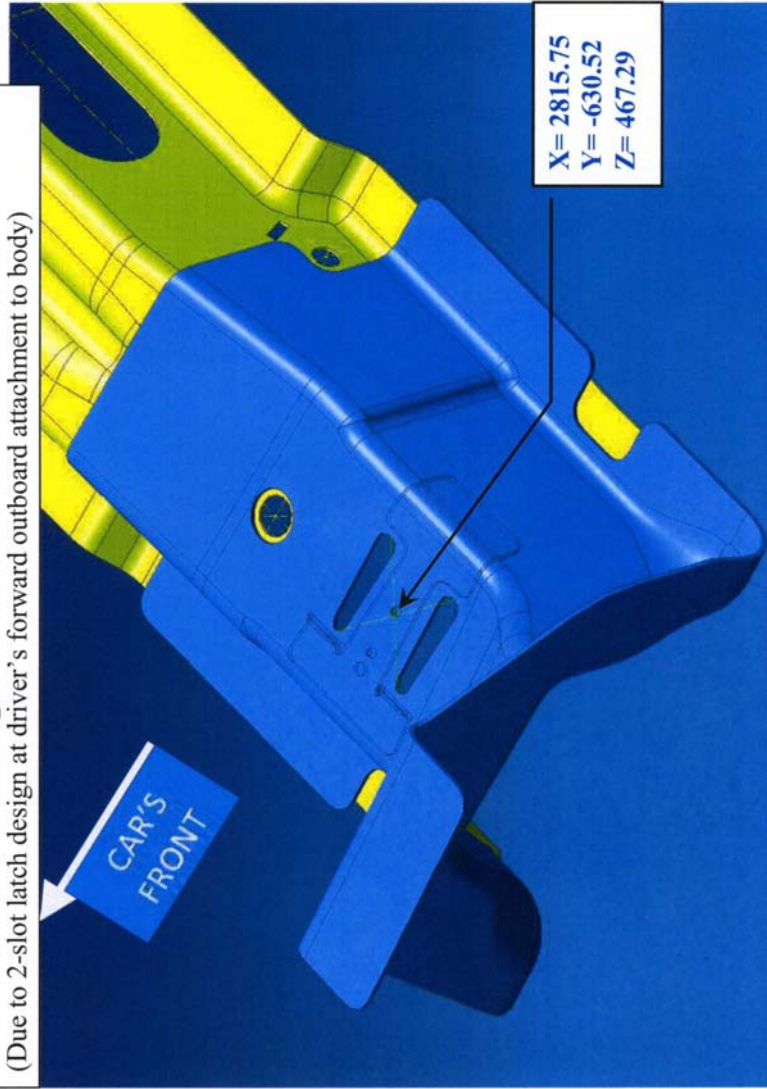
1. How many designated seating positions exist in the vehicle?
Total 5. There are two (2) designated seating position for front row seat and three (3) for the second row seat.
2. How many designated seating positions are equipped with lower anchorages and tether anchorages? Specify which position(s).
2- LH and RH second row (not center). The left and right seating positions of the second row seat are equipped with lower anchorages.
3. How many designated seating positions are equipped with tether anchorages? Specify which positions(s).
The left, center and right seating positions of the second row seat are equipped with tether anchorages.

FORM – 225

4. Lower Anchorages Marking and Conspicuity: Whether the anchorages are certified to S9.5(a) or S9.5(b) of FMVSS No. 225.
 Certified to S9.5(a)

Driver's Seat Anchorage Point Clarification

(Due to 2-slot latch design at driver's forward outboard attachment to body)

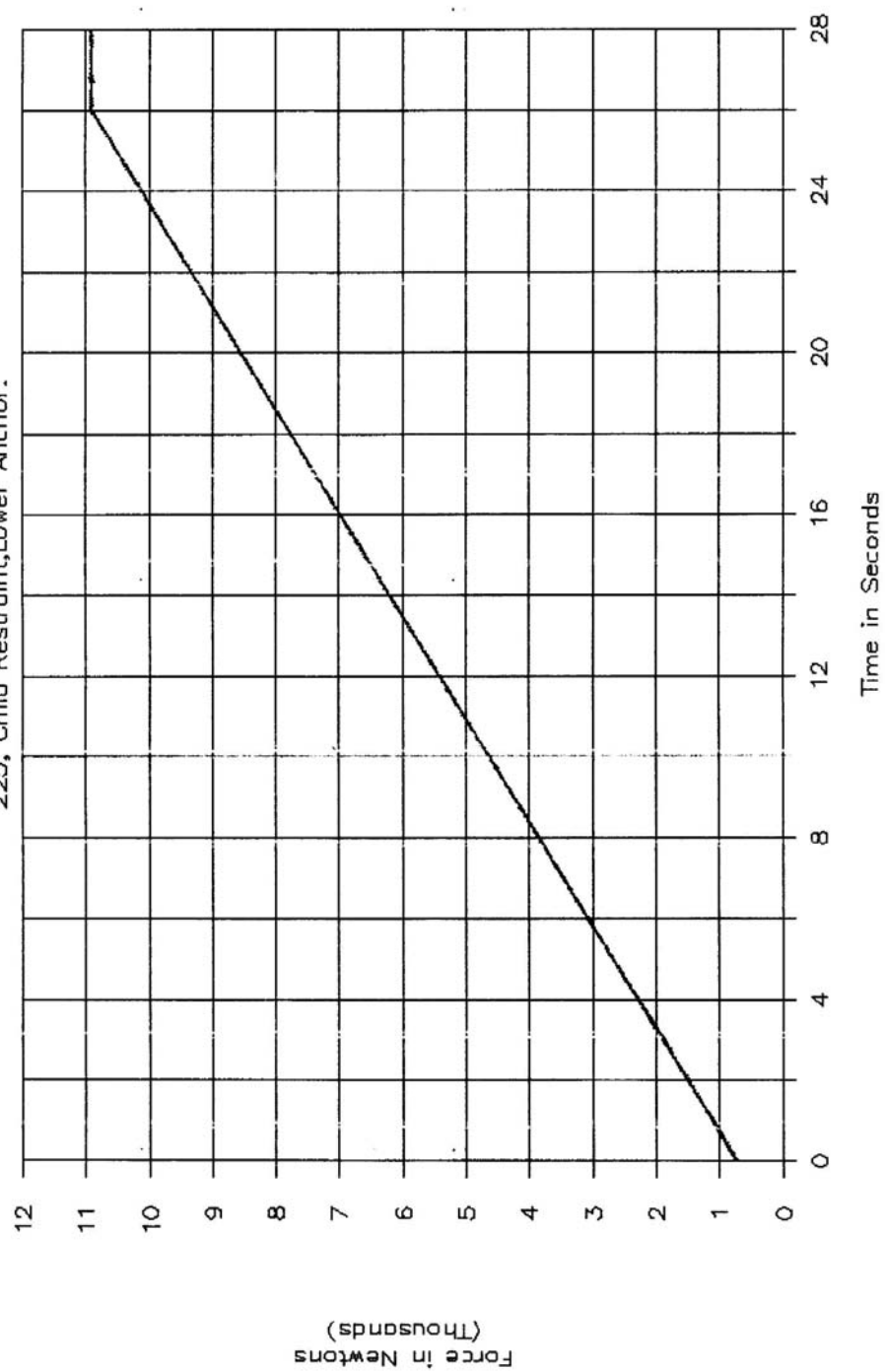


(X,Y,Z) Coordinates of the "Driver's Seat Front Outboard Seat Adjuster Anchorage" provided by GM on 11/15/08

APPENDIX C PLOTS

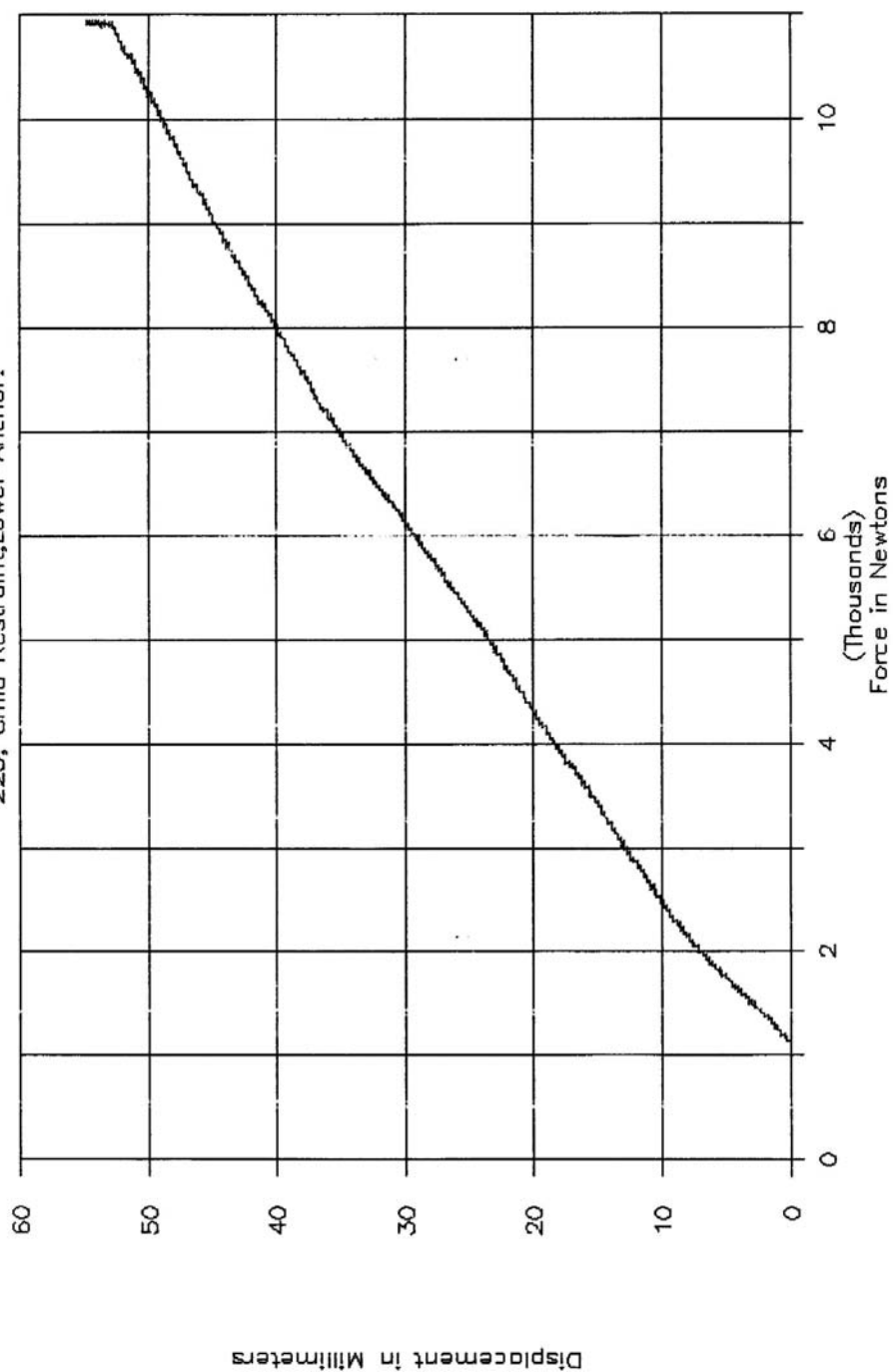
GTL 6291, NHTSA C90101

225, Child Restraint, Lower Anchor.



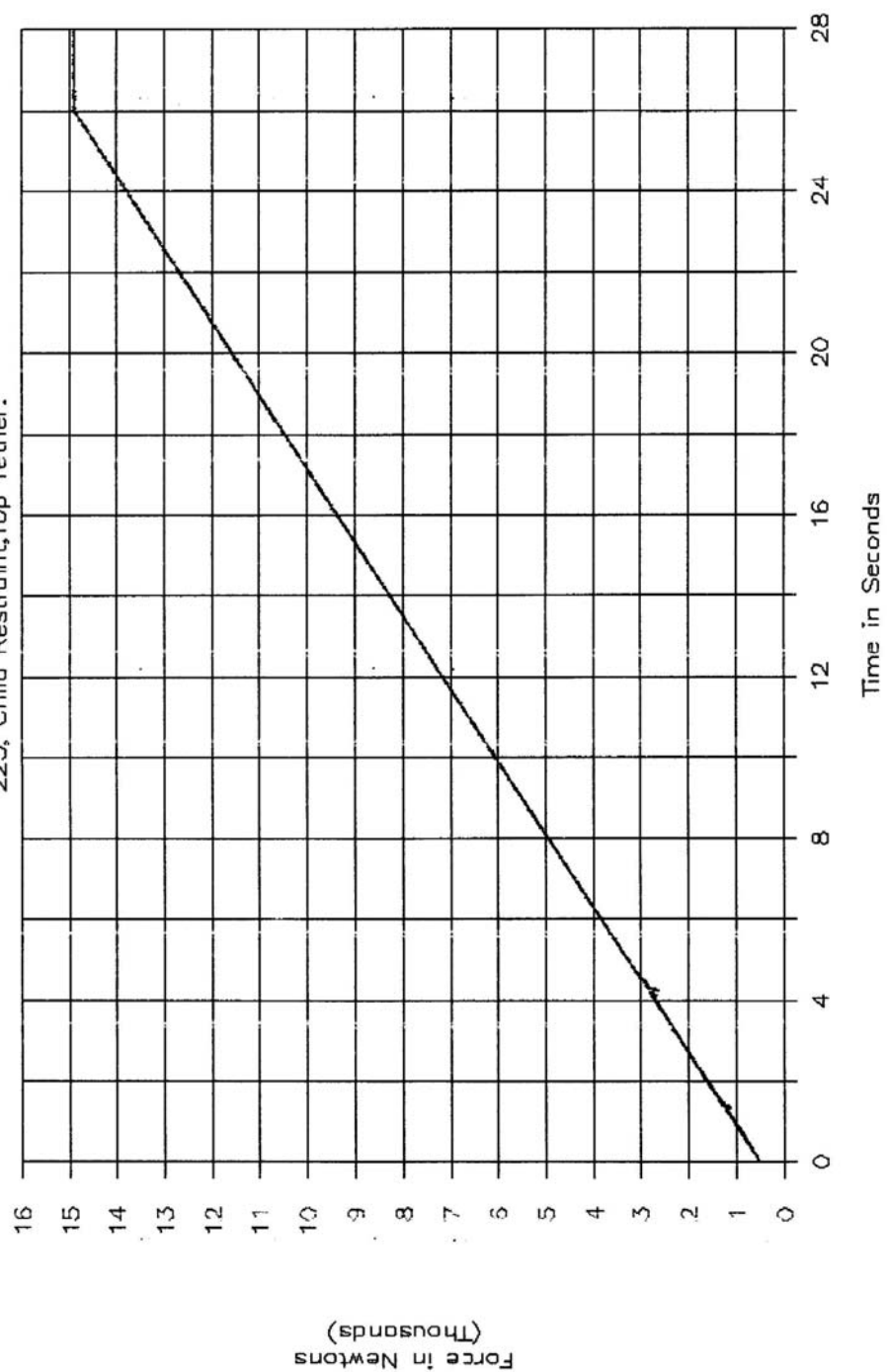
GTL 6291, NHTSA C90101

225, Child Restraint, Lower Anchor.



GTL 6292, NHTSA C90101

225, Child Restraint, Top Tether.



GTL 6293, NHTSA C90101

225, Child Restraint, Top Tether.

